



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,361	09/24/2003	Yuji Yoshikawa	242919US0	4702

22850 7590 10/30/2006

C. IRVIN MCCLELLAND
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

FEELY, MICHAEL J

ART UNIT	PAPER NUMBER
----------	--------------

1712

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,361

Applicant(s)

YOSHIKAWA ET AL.

Examiner

Michael J. Feely

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6 and 8-19 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 11-13 is/are allowed.
6) ☒ Claim(s) 2-4, 8-10, 14-16 and 19 is/are rejected.
7) ☒ Claim(s) 5, 6, 17 and 18 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Pending Claims

Claims 2-6 and 8-19 are pending.

Response to Amendment

1. Applicant has amended claim 2 (*previously dependent from claim 1*) into independent form. However, all of the materials required in previous claim 1 are not present in the amended version of claim 2. Specifically, claim 2 does not include the language: “wherein each of said first and second coating compositions further comprises at least one ingredient selected from the group consisting of (E) a radical initiator and (G) a photoacid generator.”

Claim Objections

2. Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 14 is dependent from claim 10, which is dependent from claim 2. However, the body of claim 14 is exactly the same as the body of claim 2. Claim 14 does not further limit the parent claim because all of the limitations set forth in claim 14 are already set forth in claim 2.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1712

4. Claims 8 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 19 recite the limitation "said photoacid generator (G)" in the antireflection films of claims 2 and 10. There is insufficient antecedent basis for this limitation in the claims.

Previous Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. The rejection of claims 1, 3-6, 8-10, and 15-19 under 35 U.S.C. 103(a) as being unpatentable over Ikeyama (WO 02/075373) has been rendered moot by the cancellation of claim 1.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 2-4, 10, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ochiai et al. (Pub. No.: US 2002/0021393).

Regarding claims 2-4, 10, and 14-16 Ochiai et al. disclose: **(2 & 14)** the antireflection film comprising:

(1) a high refractive index layer (Abstract) formed of a first coating composition in the cured state (paragraph 0023) primarily comprising: (A) metal oxide fine particles comprising at

Art Unit: 1712

least one oxide selected from the group consisting of titanium oxide, aluminum oxide, zirconium oxide, cerium oxide, iron oxide, tin oxide, an compound oxides thereof (paragraph 0023), and having an average particle size of 1 to 500 nm (paragraph 0031); and (B) a compound having in a molecule at least one group of at least one type selected from the class consisting of an acrylic, methacrylic, vinyl and styryl group (paragraphs 0023-0026);

(2) a low refractive index layer (Abstract) formed of a second coating composition in the cured state (paragraphs 0040-0042) primarily comprising: (D) silica based inorganic oxide fine particles having void in the interior and having an average particle size of 1 to 500 nm (paragraph 0041); and (C) a compound having in a molecule at least two groups of at least one type selected from the class consisting of an epoxy and oxetane group (paragraphs 0040 and 0028-0030: *polymers thereof*); said high refractive index layer an said low refractive index layer being successively stacked (Abstract);

(3 & 15) wherein component (B) is a compound having at least two acrylic groups in a molecule (paragraphs 0025-0027);

(4 & 16) wherein component (B) is a compound having at least two acrylic groups and a benzene ring in a molecule (paragraphs 0025-0027); and

(10) an antireflection film-bearing article having the antireflection film of claim 2 formed on at least one surface of a substrate (Abstract).

Claim Rejections - 35 USC § 102/103

9. Claim 9 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ochiai et al. (Pub. No.: US 2002/0021393).

Art Unit: 1712

Regarding claim 9, Ochiai et al. disclose that their first coating is cured by irradiating it with actinic energy radiation (*see paragraph 0039*); however, their second coating is cured by thermal energy (*see paragraph 0046*). Still, all of the material limitations are satisfied.

Claim 9 is a product-by-process claim. It has been found that, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process,” – *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Therefore, it appears that the instantly claimed product would have been the same as or an obvious variation of the product of Ochiai et al., regardless of the curing mechanism used in the second layer because Ochiai et al. satisfy all of the material limitations of the instantly claimed product.

Allowable Subject Matter

10. Claims 5, 6, 17, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 11-13 are allowed.

12. Claims 8 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 1712

13. Furthermore, claims 2-4, 9, 10, and 14-16 would be allowable if the following limitation were included in claim 2: "wherein each of said first and second coating compositions further comprises at least one ingredient selected from the group consisting of (E) a radical initiator and (G) a photoacid generator."

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1712

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is 571-272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael J. Feely
Primary Examiner
Art Unit 1712

October 26, 2006

**MICHAEL FEELY
PRIMARY EXAMINER**